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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/560,582

12/13/2005

Yoshihito Hamada

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BIRCH STEWART KOLASCH & BIRCH  
PO BOX 747  
FALLS CHURCH, VA 22040-0747

EXAMINER

CORDRAY, DENNIS R

ART UNIT

PAPER NUMBER

1791

NOTIFICATION DATE

DELIVERY MODE

07/18/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/560,582	<b>Applicant(s)</b> HAMADA ET AL.	
	<b>Examiner</b> DENNIS CORDRAY	<b>Art Unit</b> 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-19 is/are pending in the application.
- 4a) Of the above claim(s) 6-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3-5 and, 19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/13/2005</u> .  | 6) <input type="checkbox"/> Other: _____                          |



## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election without traverse of the invention of Group I, claims 1, 3-5 and 19, and further election without traverse of species H in the reply filed on 4/30/2008 is acknowledged. Applicant's argument regarding the correct description of the elected species is convincing. The elected species is "aliphatic acids or esters of aliphatic acids and alcohols." Claims 6-18 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 19 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 19 provides for the use of the powder composition of Claim 1, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-5 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ikeda et al (US 2002/0117278) in view of Tadokoro et al (6599392), Nievandt et al (US 2004/0171719) and Reynolds et al (3212962) and as evidenced by "Characteristic of Raw Starch", Nippon Starch Chemical Co., LTD.

Ikeda et al discloses a composition for internal addition prior to papermaking that improves the bulky value and strength, the composition comprising a compound (A) having a lyotropic degree of not less than 4%, and a water-soluble compound (B) (Abs; p 1, pars 5 & 6). In some embodiments, (A) is an ester of a polyhydric alcohol and a fatty acid (p 3, par 46) and the water-soluble polymer (B) is a cationic starch (a water-soluble saccharide or a polymer having at least one cationic group) (p 5, pars 80-81). Compound (A) is the claimed hydrophobic organic compound. The composition preferably contains a nonionic, anionic, cationic or amphoteric surfactant (C), which

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improves the emulsification and/or dispersion of (A), thus is an emulsifying or dispersing agent (p 5, par 84; p 6, par 98). The cationic and amphoteric surfactants have at least one cationic group. Other additives that can be added prior to papermaking include sizing agent, filler, retention aid, drainage aid, paper-strength additive and the like (p 6, par 105).

Ikeda et al does not disclose a powder composition or an average particle diameter.

Tadokoro et al discloses a paper bulking promoter that is an ester of a polyhydric alcohol and a fatty acid (Abs; col 1, lines 55-59). The compound can be in solid form, which is pulverized prior to adding it to a papermaking process (powder composition). If necessary, a nonionic, anionic, cationic and polymeric surfactant is used as an emulsifier or dispersant (col 3, lines 50-57). Other additives that can be added at the time of papermaking are sizing agent, starch and latex, filler, yield improver, drainage aid and paper strength additive (col 4, lines 21-24).

Nievandt et al discloses a starch composition in dry form as an additive in a papermaking furnish (Abs; p 1, par 12). The dry starch composition can also comprise a polymer containing anionic groups or potential anionic groups, inorganic colloids and other typical additives, such as sizing agents, wet and dry strength additives, cationic polymers, aluminum compounds, additional starches, etc (pp 2-3, pars 25-27). The dry mixture can be prepared, transported and stored as a dry mixture and combined with water or a liquid prior to use.

Reynolds et al discloses a sizing composition for addition to a cellulose fiber papermaking suspension, the composition comprising cationic vinyl polymers and a water-soluble cationic starch (col 1, lines 10-65; col 2, lines 11-14). The composition can be made into a particulate, free flowing, dry blend that can be transported or stored for long periods of time without deterioration. Reynolds teaches that the starch normally exists in a dry powder of fine particle size and it is preferred that the polymer be ground to approximately the same particle size to form a blend that does not undergo classification due to vibrations during shipment (col 3, lines 36-51). Raw starch comes in particle sizes from about 4 to 100 microns (see "Characteristic of Raw Starch", Nippon Starch Chemical Co., LTD., if evidence is needed).

The art of Ikeda et al, Tadokoro et al, Nievandt et al, Reynolds et al and the instant invention is analogous as pertaining to mixtures of papermaking additives and dry mixtures thereof. Ikeda et al teaches the ingredients of the composition as claimed. Tadokoro et al teaches that the bulking promoter can be in dry powdered form. Nievandt et al and Reynolds et al teach that it is well known to form mixtures of various wet end papermaking additives as powders. It would have been obvious to one of ordinary skill in the art at the time of the invention to make the claimed dry mixture having the claimed particle size as the composition of Ikeda et al in view of Tadokoro et al, Nievandt et al and Reynolds et al to provide a product that can be transported without classification and that can be stored for long periods of time without deterioration.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DENNIS CORDRAY whose telephone number is (571)272-8244. The examiner can normally be reached on M - F, 7:30 -4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dennis Cordray/  
Examiner, Art Unit 1791

/José A Fortuna/  
Primary Examiner, Art Unit 1791